Work Orde <i>July-11-12 10:4</i>		231		*872	31*							Page 1
Item ID: Revision ID:	D412-702-3	17		Accept	*N900	1 040	100)*	Setup	Start Stop	1 1	S1*
Item Name:	Harness Asser	mbly								Stop	*N	S2*
Required Date:	7/05/12 8/10/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item Customer							
Reference: Approvals:	Process Pla	an:	Date: 12-57-12	Tooling: SPC (Y/N):		Date:			Run	Start Stop	17	R1* R2*
Sequence ID/ Work Center II		Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accep Qty	t Re	•	Reject Number	Insp. Stamp
Draw Nbr	Rev	vision Nbr					,					<u>.</u>
DSI 9511	A											//
100				0.00				<i>u</i>				77)
100 Small Fab		Memo		0.00				_ {v	ζ_			They
Small Fab	,	Assemble	as per dwg ICA D412-702 p	49							•	
110		QC5- Inspect part com	pleteness to step on W/O	0.00 Sms				lv.				
110 QC Quality Control		Memo		0.00 Smr	16	boly		<u> </u> ×				
120				0.00		1		•				
120				400		M		<u> </u>				
Packaging		Memo	ith DAI & CHC# and no-1-fe	0.00	12.702.317	1		<i>-</i> 1	_	1	1 -	
Packaging		Identify w CHG001 Location: PPP Rev:	ith P/N & CHG# and pack fo	simpping as per PPP D4	12-702-317			*	12	408/	/15	

Dart Aerospace Ltd

W/O:	•		WO	RK ORDER CHANGE	S					-
DATE	STEP	PRO	OCEDURE CHAN		Ву	C	ate	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
					·		,			
	1									
Part No	:	PAR #:	Fault Categ	ory:	NCR: Ye	es No	DQA	A :	_ Date: _	
Res		esolution:	Disposition	• `	QA: N/C	Close	ed:		Date: _	
NCR:			WORK ORDE	R NON-CONFORMAN	NCE (N	CR)				
DATE	CTED	Description of NC		Corrective Action Section			Verific	ation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		n & Section C			Chief Eng	QC Inspector
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NOTE: Date & initial all entries

Work Orde July-11-12 10:4		7231						Page 2				
Item ID: Revision ID: Item Name:	D412-702-3			Accept	*N900	040	100)* s	Setup S	Start Stop		S1* S2*
Start Date: Required Date: Reference:	7/05/12 8/10/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:						
Approvals:	Process Pl	an:	Date:	Tooling:	Da	ate:		F		Start	*N	R1*
	QC:		Date:	SPC (Y/N):	Da	ate:				Stop	*N	R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
130		QC21- Final Inspection -	Work Order Release	0.00								
130 QC Quality Control		Memo		0.00					ML	ゴ	1510	08/17
Quality Control									V	(7	D8/	16

Dart Aerospace Ltd

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W/O:		<u></u>	WORK ORDER CHANGES													
DATE	STEP	PRO	OCEDURE CHA	E	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector							
							•									
Part No	•	PAR #:	Fault Cate	gory:	_ NCR:	Yes N	lo DQA	\ :	_ Date: _							
	Res	solution:	Disposition	n: <u>`</u>	_ QA: N	/C Clo	sed:		Date: _							
NCR:		,	WORK ORD	ER NON-CONFORMA	ANCE (NCR)										
DATE	CTED	Description of NC		Corrective Action Secti			Verification		Approval	Approval						
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		ign & Date	Section		Chief Eng	QC Inspector						

						•										
																
-										i						

NOTE: Date & initial all entries

July-11-12 10:41:46 AM

Work Order ID:

87231

Parent Item:

D412-702-317

Parent Item Name:

Harness Assembly

Start Date: 7/05/12

Required Date: 8/10/12

Start Qty: 1.00

Required Qty: 1.00

Comments:	IPP Rev:A new iss	ue DD 10.04.30 v	verified:l	EC									
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3573-5 Adapter		Manufactured	No			100	Each	21.0000	1	1	5//	2/	08/14
				Location		Loc Qty	. <u>T</u>	oc Code				•	
				GA		21						_	
	V			31	863	21							
D4088-041 Shoulder Harness		Manufactured	No		•	100	Each	18.0000	1	1 <)12	<u> 188/1</u>
				Location		Loc Qty	<u>L</u>	oc Code			//	2	1
				GA 84	794	-4 18					B	87	300(
				ST267		22					7/		
MS24693-S272 Screw		Purchased	No			100	Each	253.0000	4	4	4	12	108/1
				Location		Loc Qty	L	oc Code				l.	
				GA		236							
				11	8352	236				4			
				ST288		17							
					6391	11					_		
					6737 7977	2						//	
AN960JD10LL Washer		Purchased	No		. 1911	100	Each	3,432.000	4	4 <		502	<u>/08/</u> /
				Location		Loc Oty	<u>L</u>	oc Code				6	
				ST337A		3432					//		•
					9085	272				7			
				19	9600	3160				<i>-</i>			

Dart Aerospace Ltd

	Johade								•					
W/O:			WO	RK ORDER CHANGE	S									
DATE	STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector					
								·						
Part No	•	PAR #:	Fault Categ	jory:	NCR: Yes	No DQ	A:	Date: _						
Re		esolution:	Disposition	i: ,	QA: N/C CI	osed:		Date: _						
NCR:		WORK ORDER NON-CONFORMANCE (NCR)												
		Description of NC		Corrective Action Section		Verific	cation	Approval	Approval					
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date		ion C	Chief Eng	QC Inspector					
									·					
							<u>.</u>							
		-												
	1													
									'					

NOTE: Date & initial all entries

July-11-12 10:41:46 AM

Work Order ID:

87231

Parent Item:

D412-702-317

Parent Item Name:

Harness Assembly

MS21042L3

Purchased

No

3,199.0000

Start Date: 7/05/12

Required Date: 8/10/12

Start Qty: 1.00

Regarired Qty 1.00

Nut Location ST300

Loc Code Loc Oty 1199 32 117885 119017 763 119075 138 266 121444 ST317 2000 122141 2000

100

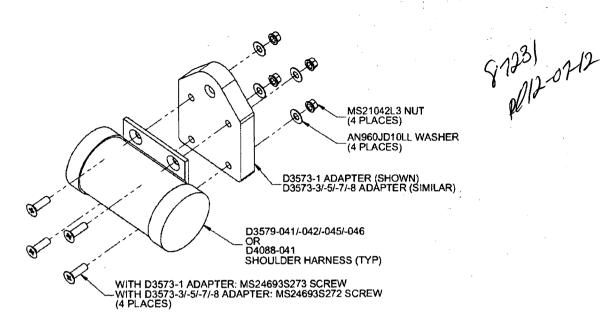
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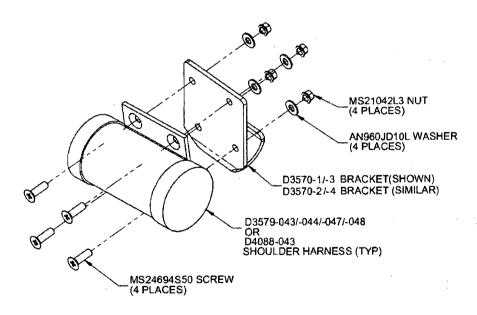
W/O:			WO	RK ORDER CHANGE	S			74.1					
DATE	STEP	PRO	OCEDURE CHAI	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
			•										
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Part No	:	PAR #:	Fault Categ	ory:	NCR: Yes	A:	Date:						
		esolution:	Disposition	: <u>'</u>	QA: N/C Closed: Date:								
NCR:			WORK ORDE	R NON-CONFORMAL	NCE (NCF	R)							
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval				
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NOTE: Date & initial all entries

DART AEROSPACE LTD.



<u>DETAIL 'K' D412-702-101A/-103A/-105A/-107A/-109A/-115A/-117A AND D412-702-101B/-103B/-105B/-107B/-109B/-115B/-117B OR -301/-303/-305/-307/-309/-315/-317 HARNESS ASSEMBLIES</u>



DETAIL 'L' D412-702-111A/-111B/-113A/-113B OR -311/-313/-321/-323 HARNESS ASSEMBLIES

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										•		DQA:	Da ^s	te:	
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFORI	MANCE / UP	DATE			_		
<u> </u>						,					Q	(A Closed:	Da	te:	
Work Orde	er:					DISPOSITION				AGAINST D	EP/	ARTMENT/	PROCESS		
Part No						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fal Thermoforming Finishing Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier				Engineering Quality Other
Root					Descri	ption of work order update		Initial	Ac	tion		Sign &			-
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verificatio	n	QC Inspector
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Setup															
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Process															
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Landi	ng G	Gear				General		_		_	_				-
		Bending				Bend		Grain			_]c	Ovalized			Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	are		_]c	Over/Under	tolerance		Temperature/Cure
Cracks						Broken/Damaged		Inspection Incomplete				Part Incorrect			Weld

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Wrong Stock Pulled

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Cuffs

Heat Treat

Burrs

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-702 REV. E AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-702 REV. 3
REF TCCA STC SH04-7
REF FAA STC SR01997NY
REF EASA STC EASA,I.M.R.S.00710

This service instruction adds several kits equipped with improved inertia reels:

The Dart **D412-702-341** 13-Man Shoulder Harness Kit provides 3-point harnesses with inertia reels and joined lap and shoulder belts for all 13 passenger seating positions in the aircraft cabin. The kit also contains hardpoints for securing the harnesses. The harnesses for this kit meet the requirements of TSO-C114 and replace the existing lap belts. This kit should be installed similar to the **D412-702-041B** kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-343** 5-Man Forward Facing Shoulder Harness Kit provides 3-point harnesses with inertia reels and joined lap and shoulder belts for the 5 forward facing seating positions in the aircraft cabin. The kit also contains hardpoints for securing the harnesses. The harnesses for this kit meet the requirements of TSO-C114 and replace the existing lap belts. This kit should be installed similar to the D412-702-043B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-345** 4-Man Shoulder Hamess Kit provides 3-point harnesses with inertia reels and joined lap and shoulder belts for the 4 aft facing seating positions in the aircraft cabin. The kit also contains hardpoints for securing the harnesses. The harnesses for this kit meet the requirements of TSO-C114 and replace the existing lap belts. This kit should be installed similar to the D412-702-045B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-347** 4-Man Shoulder Harness Kit provides 3-point harnesses with inertia reels and joined lap and shoulder belts for the 4 side facing seating positions in the aircraft cabin. The kit also contains hardpoints for securing the harnesses. The harnesses for this kit meet the requirements of TSO-C114 and replace the existing lap belts. This kit should be installed similar to the D412-702-047B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-349** 1-Man Shoulder Harness Kit provides a 3-point harness with an inertia reel and joined lap and shoulder belts for the center forward facing seating position in the aircraft cabin. The kit also contains hardpoints for securing the harness. The harness for this kit meets the requirements of TSO-C114 and replaces the existing lap belts. This kit should be installed similar to the D412-702-049B kit, as detailed in Table 1 of this service instruction.

The Dart **D412-702-351** 1-man 3-point shoulder harness kits are available for the outboard seats of the 5-man forward facing bench in Bell 205/212/214/412 model aircraft. The kit can be installed LH or RH. These kits should be installed similar to the D412-702-051B/-052B kits, as detailed in Table 1 of this service instruction.

The Dart **D214-702-337** 5-Man Aft Facing Shoulder Harness Kit provides 3-point harnesses with inertial reels and joined lap and shoulder belts for the 5-man aft facing seat installed in the Bell 214B/B1 model aircraft. This kit should be installed similar to the D214-702-037B kit, as detailed in Table 1 of this service instruction.

The Dart D205-702-353 4-Man Aft Facing Shoulder Harness Kit provides 3-point harnesses with inertial reels and joined lap and shoulder harnesses for the 4-man aft facing seat installed in the UH-1 model aircraft. This kit should be installed similar to the D205-702-053B kit, as detailed in Table 1 of this service instruction.

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Α	NEW IS	SUE		CP	10.03.18
REV.			DESCRIPTION	BY	DATE
DESIGN		q?	DART AEROSP	ACE	LTD
DRAWN		9?	HAWKESBURY, ONTAR		
CHECKE	D		DRAWING NO.		REV. A
MFG. AF	PR.	N/A	DSI 9511		SHEET 1 OF 6
APPRO\	/ED	140,	TITLE		SCALE
DE APP	₹.	#	NEW SHOULDER HARNES	S KITS	NTS
DATE	10.03	3.18	COPYRIGHT © 2010 BY DART A THIS DOCUMENT IS PRIVATE AND CONTIDENTIAL AND IS SUPPLIED NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNIC WRITTEN PERMISSION FROM DART AE	ON THE EXPRE	SS CONDITION THAT IT IS

												DQA:	Date	e: _	
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Work Ord	er.					DISPOSITION				AGAINST	DE	PARTMENT	PROCESS		
Work Ord	C1.					Rework]		Skid-tube	Crosstube] ·	Water Jet		Engineering
Part I	No.					Scrap	1		Machining	Small Fab		Pro	d. Eng. Coor.	\exists	Quality
						Use-as-is		Thern	noforming	Finishing		Rec/Stor	e/Packaging		Other
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		Bending			<u> </u>	Bend		Grain			L	Ovalized			Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspect	on Incomplete			Part Incorre	ct [Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear		Part Lost/Mi	ssing		Wrong Stock Pulled
		Cuffs				Contamination	Г	Mainte	enance	•		Part Moved	_		-
ļ	П	Heat Trea	at			Countersink		Mislabe	eled			Positioned V	Vrong		

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

INSTALLATION

The Dart D412-702-3XX kits should be installed similar to the kits in Installation Instructions IIN-D412-702 Rev. E or Dart Service Instruction (DSI) listed below:

TABLE 1

Part Number	Description	Install similar to:
D412-702-341	Shoulder Harness Kit	D412-702-041B (IIN-D412-702, DSI 9408)
D412-702-343	Shoulder Harness Kit	D412-702-043B (IIN-D412-702, DSI 9453 [214], DSI 9408)
D412-702-345	Shoulder Harness Kit	D412-702-045B (IIN-D412-702, DSI 9469)
D412-702-347	Shoulder Harness Kit	D412-702-047B (IIN-D412-702, DSI 9408)
D412-702-349	Shoulder Harness Kit	D412-702-049B (IIN-D412-702, DSI 9408)
D412-702-351	Shoulder Harness Kit	D412-702-051B (LH) (DSI 9397, DSI 9408) D412-702-052B (RH) (DSI 9397, DSI 9408)
D214-702-337	Shoulder Harness Kit	D214-702-037B (DSI 9454)
D205-702-353	Shoulder Harness Kit	D205-702-053B (DSI 9460)
D412-702-301	Harness Assembly	D412-702-101B (IIN-D412-702)
D412-702-303	Harness Assembly	D412-702-103B (IIN-D412-702)
D412-702-305	Harness Assembly	D412-702-105B (IIN-D412-702)
D412-702-307	Harness Assembly	D412-702-107B (IIN-D412-702)
D412-702-309	Harness Assembly	D412-702-109B (IIN-D412-702)
D412-702-311	Harness Assembly	D412-702-111B (IIN-D412-702)
D412-702-313	Harness Assembly	D412-702-113B (IIN-D412-702)
D412-702-315	Harness Assembly	D412-702-115B (IIN-D412-702)
D412-702-317	Harness Assembly	D412-702-117B (IIN-D412-702)
D412-702-319	Harness Assembly	D412-702-119B (DSI 9454)
D412-702-321	Harness Assembly	D412-702-121B (DSI 9454, DSI 9469)
D412-702-323	Harness Assembly	D412-702-123B (DSI 9454, DSI 9469)

81231

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-0-01

BY: D. SHEPHERD (DE # 02)

DATE: 10.03.22
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	P	DART AEROSPACE	LTD
DRAWN	97	HAWKESBURY, ONTARIO, CAN	ADA
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9511	SHEET 2 OF 6
APPROVED	10	TITLE	SCALE
DE APPR.	#	NEW SHOULDER HARNESS KITS	NTS
DATE 10.0	3.18	COPYRIGHT @ 2010 BY DART AEROSPAC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPR NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY WHITTEN PERMISSION FROM DART AEROSPACE LTD.	ESS CONDITION THAT IT IS

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Part N	No.				Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	ᅥ	Quality
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Cracks				Broken/Damaged		4	ion Incomplete			Part Incorre		\vdash	Weld	
	Crushe	d/Crimped			Burrs	\perp	Instruct	ions Incomplete/	Unclear		Part Lost/M	issing		Wrong Stock Pulled
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	Hoat Ti	ost.		1	Countersink	1	Mislahe	alad		ļ	Positioned V	Mrong		

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

PARTS LIST

TABLE 2

				-349	-351	i	Description
X						D412-702-341	Dart 13-Man 3-Point Shoulder Harness Kit
	x					D412-702-343	Dart 5-Man 3-Point Forward Facing Shoulder Harness Kit
		х	·			D412-702-345	Dart 4-Man 3-Point Aft Facing Shoulder Harness Kit
	·		Х			D412-702-347	Dart 4-Man 3-Point Side Facing Shoulder Harness Kit
				х		D412-702-349	Dart 1-Man 3-Point Forward Shoulder Harness Kit
					Х	D412-702-351	Dart 1-Man 3-Point Shoulder Harness Kit
1	1		1	1		D412-702-059	GROMMET KIT
9	5		4	1	1	D3761-1-041	HOOK AND LOOP STRIP (DSI 9408)
	4		1			D412-702-301	HARNESS ASSEMBLY (NEW)
2 1*	1*		1*		 	D3573-7	ADAPTER
1*	1*		1*		ļ — —	D4088-041	SHOULDER HARNESS (NEW)
4*	4*		4*		 	MS24693S272	SCREW
4*	4*		4*		-	AN960JD10LL	WASHER
4*	4*		4*			MS21042L3	NUT
4							
2	1		1			D412-702-303	HARNESS ASSEMBLY (NEW)
1*	1*		1*	L		D3573-8	ADAPTER
1*	1*		1*			D4088-041	SHOULDER HARNESS (NEW)
4*	4*		4*			MS24693S272	SCREW
4*	4*		4*			AN960JD10LL	WASHER
4*	4*		4*			MS21042L3	NUT
1	1			1	 	D412-702-305	HARNESS ASSEMBLY (NEW)
1*	1*			1*	 	D3573-1	ADAPTER
1+	1*			1*	 	D4088-041	SHOULDER HARNESS (NEW)
4*	4*			4*	 	MS24693S273	SCREW
4*	4*			4*	<u> </u>	AN960JD10LL	WASHER
4*	4*			4*		MS21042L3	NUT
1	1				1	D412-702-307	HARNESS ASSEMBLY (NEW)
1*	1*				1*	D3573-3	ADAPTER
1*	1*		.	·	1*	D4088-041	SHOULDER HARNESS (NEW)
4*	4*				4*	MS24693S272	SCREW
4*	4*				4*	AN960JD10LL	WASHER
4*	4*		ļ		4*	MS21042L3	NUT
1	1					D412-702-309	HARNESS ASSEMBLY (NEW)
1*	1*	 		 		D3573-3	ADAPTER
1*	1*		 		 	D4088-041	SHOULDER HARNESS (NEW)
4*	4*		 	<u> </u>		MS24693S272	SCREW
4*	4*				 	AN960JD10LL	WASHER
4*	4*					MS21042L3	NUT
· · · · · · · · · · · · · · · · · · ·			* der	notes the	at part is	s included in asser	mbly above

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-0-01

BY: D. SHEPH#RD (DE # 02)

DATE: 10.03.22 CERT. NO.: SH04-7 ISSUE NO.: 3 continued next page...

DESIGN	9	DART AEROSPACE	LTD
DRAWN	93	HAWKESBURY, ONTARIO, CAN	ADA
CHECKED	l la	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9511	SHEET 3 OF 6
APPROVED	10,	TITLE	SCALE
DE APPR.	-#	NEW SHOULDER HARNESS KITS	NTS
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												DQA:	Date	:
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UP	DATE		. •	•	
												QA Closed:	Date	:
Work Orde	or.					DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. NCR No.						Rework Skid-tube Crosstu Scrap Machining Small I Use-as-is Thermoforming Finish Work Order Update Large Fab Compos			Fab ning	Pro Rec/Sto	Engineering Quality Other			
Root					Descrip	otion of work order update		Initial	Ac	tion		Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved														
			<u></u>	<u> </u>			AUI	LT CATE	GORY			1	L	
Landi	ng G	iear				General								
		Bending Centre No Cracks Crushed/ Cuffs			/s	Bend BOM/Route Broken/Damaged Burrs Contamination		- 1 `	on Incomplete ions Incomplete/	/Unclear		Ovalized Over/Under Part Incorre Part Lost/M Part Moved	ct	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
		Heat Trea	at			Countersink		Mislabe	led			Positioned \	Wrong	<u>_</u>
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	i			Power Loss/	'Surge	Other
Ripples in Bend					Drill Holes		Offset							

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

... continued from previous page

QTY -341	QTY -343	QTY -345	QTY -347	QTY -349	QTY -351	Part Number	Description
1		1				D412-702-311	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-1	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	SCREW
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-313	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-2	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	SCREW
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1		-				WIGZTU4ZEG	
1			1			D412-702-315	HARNESS ASSEMBLY (NEW)
1*			1*			D3573-5	ADAPTER
1*			1*			D4088-041	SHOULDER HARNESS (NEW)
4*			4*			MS24693S272	SCREW
4*			4*			AN960JD10LL	WASHER
4*			4*			MS21042L3	NUT
1			1			D412-702-317	HARNESS ASSEMBLY (NEW)
1*			1*			D3573-5	ADAPTER
1*			1*			D4088-041	SHOULDER HARNESS (NEW)
4*			4*			MS24693S272	SCREW
4*			4*			AN960JD10LL	WASHER
4*			4*			MS21042L3	NUT
1		1				D412-702-321	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-3	BRACKET
1*		1*	·	<u> </u>		D4088-043	SHOULDER HARNESS (NEW)
4*		4*		 		MS24694S50	BOLT
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-323	HARNESS ASSEMBLY (NEW)
1*		1*		 		D3570-4	BRACKET
1*	†	1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	BOLT
4*		4*			l	AN960JD10L	WASHER
4*	t	4*				MS21042L3	NUT

* denotes that part is included in assembly above

continued next page...

81231

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

BY: D. SHEPHERD (DE # 02)

DATE: 10.03.22
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	P	DART AEROSPACE L	.TD
DRAWN	97	HAWKESBURY, ONTARIO, CANAI	
CHECKED	4	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9511 SI	HEET 4 OF 6
APPROVED	10	TITLE	SCALE
DE APPR.	#	NEW SHOULDER HARNESS KITS	NTS
DATE 10.0	3.18	COPYRIGHT © 2018 BY DART AEROSPACE THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS NOT TO BE USED FOR MY PURPOSE OR COPIED OR COMMUNICATED TO ANY DURPOSE OR COPIED OR COMMUNICATED TO ANY DURPOSE OR COPIED OR COMMUNICATED TO ANY DURPOSE OF THE MOST AEROSPACE TO THE	CONDITION THAT IT IS

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPDATE				
						<u> </u>					QA Closed:	Date:	
Work Ord	er:					DISPOSITION			AGAINST	DE	PARTMENT	PROCESS	
	• • •	<u> </u>			•	Rework]		Skid-tube Crosstube			Water Jet	Engineering
Part I	۷o.			•		Scrap	7	ľ	Machining Small Fat	,	Pro	d. Eng. Coor.	Quality
						Use-as-is	7	Therm	noforming Finishing	3	Rec/Stor	e/Packaging	Other
NCR I	۷o.				·	Work Order Update]		Large Fab Composite			Supplier	
Root					Descri	iption of work order update		Initial	Action		Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Description		Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling									·				
Operator		•											
Material													
Setup			1										
Other			 					:					
Process			[
Supplier			Į								<u> </u>		
Training		i.	ŕ										
Unapproved													
						<u> </u>	AUI	LT CATE	GORY				
Landi	ng G	ear				General		_			_	<u></u>	
	Ш	Bending			<u> </u>	Bend		Grain			Ovalized	<u> </u>	Pressure/Forced
	Ш	Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re	L	Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged	L	Inspecti	on incomplete	L	Part Incorred	ct	Weld
Crushed/Crimped Burrs							Instruct	ions Incomplete/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled	
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	t			Countersink		Mislabeled Positioned Wrong			_		
					Cut Too Short		Misread	· ·		Power Loss/	Surge	Other	

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

... continued from previous page

QTY -341	QTY -343	QTY -345	QTY -347	QTY -349	QTY -351	Part Number	Description
2	2					D3542-1	BRACKET
7	3		4	1		D3571-1	GUIDE
2	2					D3571-3	GUIDE
2		2				D3572-041	GUIDE ASSEMBLY
12	6		6	2		D3578-041	DOUBLER
2	2					D3610-041	BRACKET
2	2					D3618-1	CAP
4	4					AN4-10A	BOLT
2		2				AN4-16A	BOLT
4		4				AN4-25A	BOLT
4		4	1			AN4-27A	BOLT (DSI 9469)
2	2					AN4-44A	BOLT
2	2					MS24693S274	SCREW
3	3			1		MS24694S56	SCREW
10	2		8			MS24694S58	SCREW
1	1			1		MS24694S60	SCREW
26	6	20				AN960JD416	WASHER
4	4					AN960JD416L	WASHER
12	6_	6				MS21042L4	NUT
24	12		12	4		CR3212-4-4	RIVET

81231

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-0-01

BY: D. SHEPHERD (DE # 02)

DATE: 10.03.22 CERT. NO.: SH04-7 ISSUE NO.: 3

DESIGN	97	DART AEROSPACE	LTD
DRAWN	97	HAWKESBURY, ONTARIO, CANA	
CHECKED	L	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9511 s	HEET 5 OF 6
APPROVED	10	TITLE	SCALE
DE APPR.	-#	NEW SHOULDER HARNESS KITS	NTS
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											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-C	100	VFOR	MANCE / UPDATE		QA Closed:	 Date:	
Work Orde	er:					DISPOSITION			AGAINST		PARTMENT/		
Part N	No.					Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Use-as-is Thermoforming Finishing		Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other		
Root					Descri	ption of work order update	١	nitial	Action		Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data										1	. I		
Equip/Tooling													
Operator													
Material													
Setup													
Other									·				
Process			!				ĺ						
Supplier													
Training			_						·				
Unapproved													
						F	AUL	T CATE	GORY				
Landi	ng (Gear				General							
		Bending				Bend		Grain			Ovalized		Pressure/Forced
	Centre Not Concentric to O/S BOM/Route							Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged					Part Incorred	t 🗀	Weld
		Crushed/0	Crimped.			Burrs		instruct	ions Incomplete/Unclear	Γ	Part Lost/Mi	ssing	Wrong Stock Pulled

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

TABLE 3

QTY -337	QTY -353	Part Number	Description
х		D214-702-337	Dart 5-Man 3 Point Aft Facing Shoulder Harness Kit, for 214 Aircraft
	х	D205-702-353	Dart 4-Man 3 Point Aft Facing Shoulder Harness Kit, for UH-1 Aircraft
1	2	D412-702-311	HARNESS ASSEMBLY (NEW) -> SEE TABLE 2
1	2	D412-702-313	HARNESS ASSEMBLY (NEW)> SEE TABLE 2
11		D412-702-321	HARNESS ASSEMBLY (NEW) -> SEE TABLE 2
1		D412-702-323	HARNESS ASSEMBLY (NEW)> SEE TABLE 2
1		D412-702-319	HARNESS ASSEMBLY (NEW)
1*		D3925-041	BRACKET
1*		D4088-043	SHOULDER HARNESS ASSEMBLY (NEW)
4*		MS24694S50	BOLT
4*		AN960JD10L	WASHER
4*		MS21042L3	NUT
	1	D3572-043	GUIDE ASSY
	1 1	D3572-044	GUIDE ASSY
1	 '	D3920-041	SEATBELT GUIDE ASSEMBLY
2	 	D3920-5	SEATBELT GUIDE
1	6	AN4-16A	BOLT
1	1	AN4-21A	BOLT
7		AN4-25A	BOLT
18	12	AN960JD416	WASHER
9	6	MS21042L4	NUT

^{*} denotes that part is included in assembly above

81231

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

D. SHEPHERD (DE # 02)

DATE: 10.03.22
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	P	DART AEROSPACE	LTD
DRAWN	97	HAWKESBURY, ONTARIO, CAN	ADA
CHECKED	4	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9511	SHEET 6 OF 6
APPROVED	10	TITLE	SCALE
DE APPR.	-#	NEW SHOULDER HARNESS KITS	NTS
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									DQA:	Date:		
NCR: Yes	/ No		WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Dat								• .	
Work Order:					DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No.			-		Rework Scrap Use-as-is	Ther	Skid-tube Machining moforming	Crosstube Small Fab Finishing	ł	Water Jet d. Eng. Coor.	Engineering Quality Other	
NCR No.					Work Order Update	Inet	Large Fab	Composite	Nec/3to	Supplier		
Root Cause	Date	Step	Otv		ption of work order update	Initial	1	tion	Sign & Date	Verification	OC Inspector	

Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Grain Ovalized Pressure/Forced Bend Bending Centre Not Concentric to O/S BOM/Route Temperature/Cure Over/Under tolerance Hardware Cracks Broken/Damaged Inspection Incomplete Part Incorrect Weld Crushed/Crimped. Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Burrs Maintenance Cuffs Part Moved Contamination Heat Treat Countersink Mislabeled Positioned Wrong Other Inspection Strip in Tube **Cut Too Short** Misread Power Loss/Surge Offset Ripples in Bend **Drill Holes** Torque Waves in Extrusion Out of Calibration Drawing Turning Sequence Out of Sequence Finish Folio Wave/Twist in Tube Outside Dimensions

Doc/Data
Equip/Tooling
Operator
Material
Setup
Other
Process

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G